



# **Emergency Response to April 30, 2014 CSX Train Derailment And Lessons Learned**

Virginia's FirstNet Initial Consultation  
Richmond, Virginia  
**September 30 , 2015**



# Context

- Wednesday, April 30, 2014 - Just another beautiful day in the City of Lynchburg...
- Until – we had a small problem
- CSX train with 105 tank cars
- Crude Oil Train (Bakken Crude)
- 17 cars derail and “overturn”
- 3 cars in the James River
- Product on fire – placard 1267



# Context

- First call received 1:55 PM
- First reports were a train had derailed and was in the river on fire. The train was a tank car train.
- The caller can see “tons of smoke” over a four story building.
- Another caller advises “explosions just occurred.”

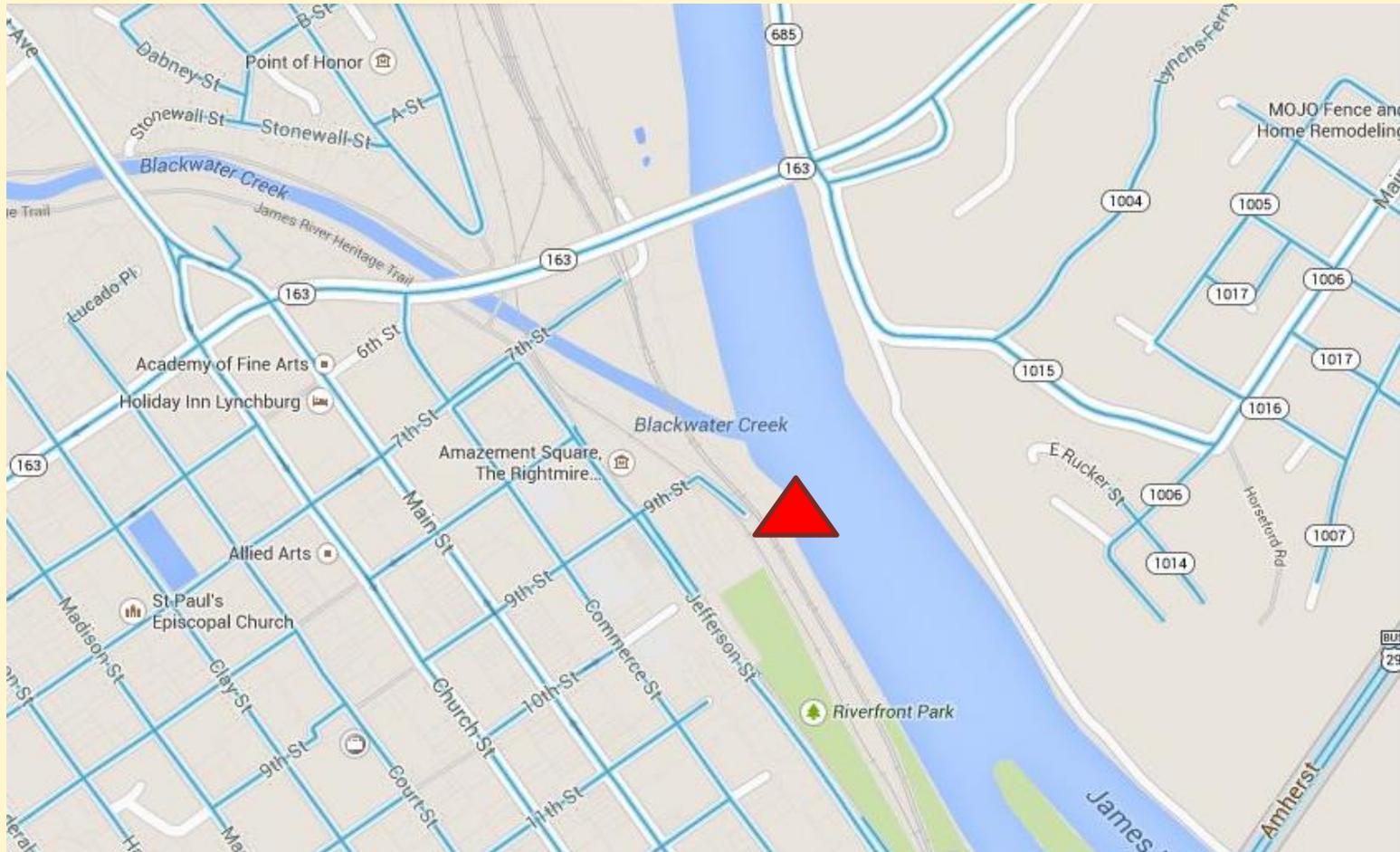


# Background Information





# Background Information





# Background Information



Depot Grille parking lot/riverfront



9<sup>th</sup> Street looking toward Main Street



# Background Information



Corner of 9<sup>th</sup> &  
Jefferson Streets

Overlooking Depot Grille





# Background Information



Aerial Views





# Background Information





# Initial Response

- LFD – 3 engines, ladder company, rescue, medic unit, battalion chief
- First arriving unit upgrades response – requests 2 additional engines and a ladder company
- Battalion 1 arrives and establishes command, asks for assistance with traffic and evacuation from Police Department – Scene size up (360°)
- Haz-Mat units requested



# Initial Considerations

- Life Safety
  - evacuate ½ mile
  - Emergency Response Guide
- Car burning – let it burn, cannot put this type of fire out/where it was located
- Chance of B.L.E.V.E (Boiling Liquid Expanding Vapor Explosion)
- View from across the river – good to go!



# B.L.E.V.E.





# Haz-Mat Considerations

- Safety
- Entry/Back Up
- Site Control
- Reference
- Decontamination
- What happens if we do nothing?



# “Controlling the Incident”

- Early and Extensive Use of Incident Command System
  - Command
  - Ops – Fire/Haz-Mat
  - Staging
  - Safety
  - Planning Position – Incident Action & Plan Forms
  - Finance
  - Logistics

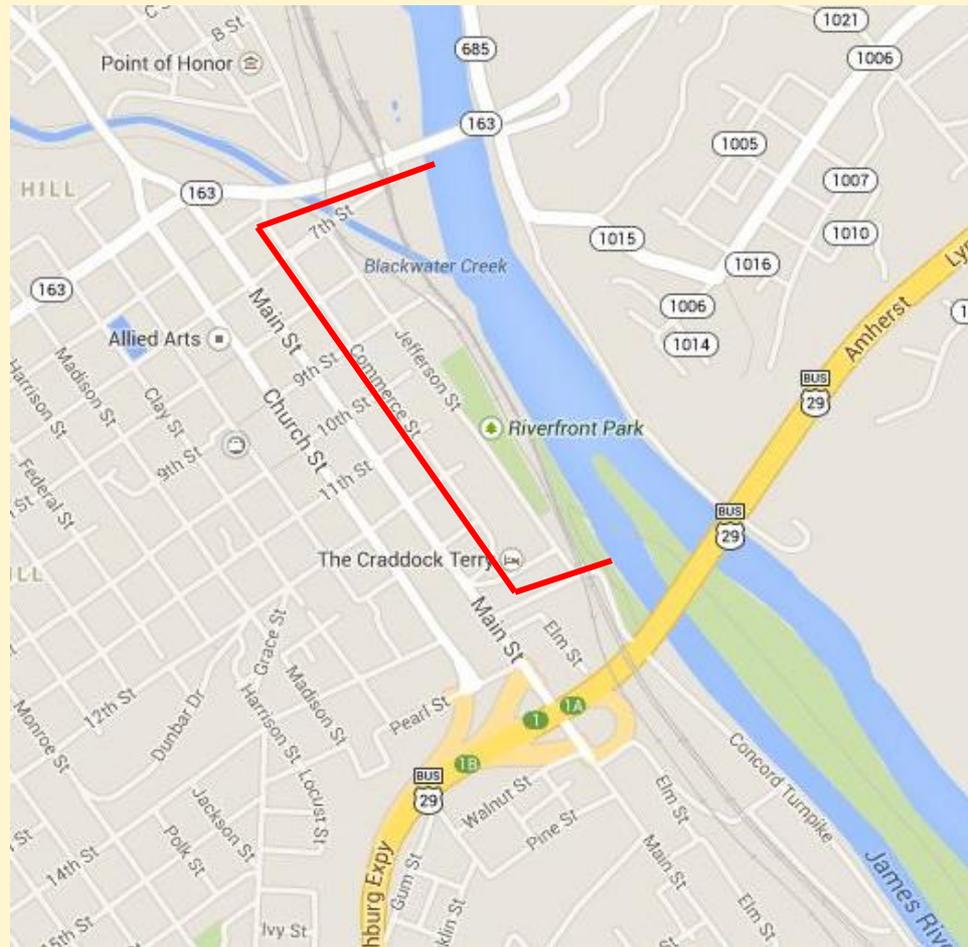


# Immediate Issues Faced

- Immediate Life Safety Threat
  - High density residential district
  - Active Downtown commercial district
- Downstream Water Quality
- Harm to Revitalized Downtown Business Zone
- Recovery Efforts Causing Further Damage



# Life Safety: Evacuation Effort





# Aftermath





# Aftermath





## Implementation of Incident Command System (ICS) and Emergency Operations Center (EOC) Operations

- State of Emergency by the City Manager
- Unified Fire/Police Command
- EOC brought into operation



# Good Luck

- Time of day allowed for considerable resources to be readily available
- The fire burned off most oil spilled
- The fire didn't get out of control
- Just one railcar burned, with no BLEVE



# Issues of Concern

- Bringing order to chaos, bringing ICS structure up on-scene
- Lots of distractions for Command – remember the time of day...
  - Cell phones vs. radio communication
- EOC never was staffed fully
- Alphabet Soup
  - FBI, DHS, EPA, DEQ, TSA, FRA, etc., etc., etc.



# Issues of Concern

- Railroad's concern about the NTSB investigation
- Recovery logistics were hampered by resource availability
- Didn't recognize "recovery" is just as much part of the incident as the initial emergency



# Lessons Learned...

- Impact of social media
- New technology (drones)
- Role of elected officials
- The conversation continues long after the event has ended
- Extensive use of Incident Command System



# A National Policy Issue



THE SECRETARY OF TRANSPORTATION  
WASHINGTON, DC 20590

May 14, 2014

The Honorable Michael A. Gillette  
Mayor of Lynchburg  
900 Church Street  
Lynchburg, VA 24504

Dear Mayor Gillette:

As our Nation steadily increases domestic energy production and reaches toward our goal of energy independence, we all share a growing responsibility to ensure the safe transport of energy products.

As you know, during the last year the United States has experienced several serious rail accidents involving the transport of crude oil from the Bakken region of the Williston Basin. These accidents have endangered communities, impacted the environment, and caused significant evacuations and property damage. Since then, I have heard from many State and local leaders urging the U.S. Department of Transportation to move quickly to reduce the risks and prevent future accidents.

I share the sense of urgency. In recent months, we have taken some unprecedented actions to improve the safe transportation of hazardous materials by rail. This comprehensive approach includes immediate and long-term steps such as launching "Operation Classification" in the Bakken region to verify that crude oil is being properly classified; issuing safety advisories, alerts, and emergency orders; conducting additional inspections; moving forward with a comprehensive rulemaking to enhance tank-car standards; and reaching an agreement with railroad companies on a series of immediate actions they have agreed to take such as reducing speeds, increasing inspections, using sophisticated routing protocols, using enhanced braking technology, and investing in first-responder training.

The top priority of the U.S. Department of Transportation is safety and, last week, we took two additional and important actions to improve safety that I want to make sure you are aware of:

First, I issued an Emergency Order requiring all railroads operating trains carrying more than 1 million gallons of Bakken crude oil, or approximately 35 tank cars, to begin notifying the State Emergency Response Commissions (SERCs) about the expected weekly train movements through their State. The notification must include the estimated volume of Bakken crude oil being transported, the frequency of expected train traffic, and the route through which Bakken crude oil will be transported. The Emergency Order also requires each railroad to provide the SERCs with the contact information for at least one individual responsible for responding to emergency responders about the railroads' Bakken crude oil shipments. The railroads have been given 30 days to implement this new practice.

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The Honorable Michael A. Gillette

Second, the Federal Railroad Administration and Pipeline and Hazardous Materials Safety Administration issued a Safety Advisory strongly urging those shipping or transporting Bakken crude oil by rail to use tank-car designs with the highest level of integrity available in their fleets.

Despite all these recent actions, I recognize that we still have much work ahead of us. We will continue to collect and analyze all available data related to the nature and characteristics of crude oil sourced from the Williston Basin. We also have asked industry to share their testing data with our safety experts, and we remain hopeful that they will do so. The reality is that not enough is known about the characteristics and volatility of this product, and industry's cooperation is critical to our ability to ensure this product is being transported as safely as possible.

Achieving higher levels of safety is a shared responsibility. While we at the U.S. Department of Transportation will continue to look at every option available to us to ensure people's safety, I urge you and your executive team to coordinate with your governor and your SERC as they engage with the railroads to ensure that State and local emergency responders have the information they need about the movement of Bakken crude. I have asked the governors to share this information with the appropriate emergency responders in affected communities, bearing in mind that this is sensitive information with security implications and that we must respect homeland security regulations regarding the widespread publication of this information.

I also welcome any information and proposals being developed by your States to improve rail safety and ensure the safe transport of crude oil. We all know that there is no single action that will resolve this issue, so we must continue to focus our comprehensive approach on prevention, mitigation, emergency response, and stakeholder outreach.

I hope you find this information helpful. I thank you for your continued leadership on this issue and look forward to working with you in ensuring the safe rail transport of crude oil.

Please do not hesitate to be in touch with me if you have any questions or concerns.

Sincerely,

Anthony R. Foxx



**Questions, Comments,  
Observations?**

